

Department of Transportation — Federal Aviation Administration
Supplemental Type Certificate

Number SA3410WE

This certificate, issued to Gary Murdock
9873 Myrtle Drive
Linden, CA 95236

certifies that the change in the type design for the following product with the limitations and conditions therefor as specified herein meets the airworthiness requirements of Part 3 of the Civil Air Regulations, dated November 1, 1949.

Original Product — Type Certificate Number: A-767
Make: Univair (Stinson)
Model: 108-3, (Landplane Only, Normal Category)
N6446M, Serial No. 108-4446

Description of Type Design Change:

Installation of Franklin 6AS-335-B engine and Hartzell HC-C2Y constant speed propeller, one-piece windshield, Cessna wheel pants and aileron and rudder centering springs, in accordance with Gary Murdock Report No. 1 dated February 14, 1977.

See Continuation Sheets 3 through . FAA Approved Gary Murdock Airplane Flight Manual Supplement dated May 24, 1977, is required with this installation.

Limitations and Conditions Data not suitable for reproduction of installation in other aircraft; therefore, they are satisfactory for Stinson 108-3 (Landplane Only), N6446M, Serial No. 108-4446 only. No additional modifications of this type are to be approved solely by reference to this Supplemental Type Certificate or to the data submitted therefor. Supplemental Type Certificate Addendum No. SA3410WE is a part of the Certificate. A copy of this Certificate and Gary Murdock Report No. 1 shall be maintained as part of the permanent records for this modified aircraft.

This certificate and the supporting data which is the basis for approval shall remain in effect until surrendered, suspended, revoked, or a termination date is otherwise established by the Administrator of the Federal Aviation Administration.

Date of application: January 20, 1974

Date reissued:

Date of issuance: May 24, 1977

Date amended:



By direction of the Administrator

James Lippis
(Signature)

Acting Chief, Aircraft Engineering Division
(Title)

Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both.

This certificate may be transferred in accordance with FAR 21.47.

LIMITED EDITION OF AIRCRAFT
Department of Transportation—Federal Aviation Administration
Supplemental Type Certificate
(Continuation Sheet)

Number SA3410WE

Date: May 24, 1977

STC : SA3410WE

Stinson 108-3, N6446M

Serial No. 108-4446

SUPPLEMENTAL TYPE CERTIFICATE ADDENDUM NO. SA3410WE

The conditions and limitations of Aircraft Specification No. A-767 apply except as follows:

This Addendum, which is part of Supplemental Type Certificate No. SA3410WE, prescribes conditions and limitations under which the product for which the STC was issued meets the airworthiness requirements of the Civil Air Regulations. A copy of this Addendum shall be maintained as part of the modified aircraft permanent records.

Supplemental Type Certificate Holder: Gary Murdock.

I - Model 108-3 (Landplane only, Normal Category), as modified by STC SA3410WE.

Engine: Franklin 6AS-335-B

Fuel: 100/130 Minimum Grade Aviation Gasoline

Engine Limits: Takeoff (One min.) 215 hp, 2800 RPM, 41" M.P. @ S.L.
215 hp, 2800 RPM, 39.5" M.P. @ 6000 ft.
215 hp, 2800 RPM, 41" M.P. @ 13,000 ft.
Maximum continuous 190 hp, 2800 RPM, 36" M.P. @ S.L.
190 hp, 2800 RPM, 34.5" M.P. @ 7000 ft.
190 hp, 2800 RPM, 37" M.P. @ 18,000 ft.
Straight line variation between points given.

Airspeed Limits: Maximum structural cruising - 126 MPH CAS
Never exceed 140 MPH CAS

Propeller and Propeller
Limits:

Hartzell HC-C2Y constant speed

Hub Model: HC-C2YF-1B

Blade Model: 8459-4

Diameter: 80" Maximum

78.5" Minimum

Pitch Settings: @ 30" Sta. Low 9.5°
High 29°

Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both.

United States of America
Department of Transportation—Federal Aviation Administration
Supplemental Type Certificate
(Continuation Sheet)

Number SA3410WE

Date: May 24, 1977

STC : SA3410WE

Stinson 108-3, N6446M

Serial No. 108-4446

SUPPLEMENTAL TYPE CERTIFICATE ADDENDUM NO. SA3410WE

Propeller and Propeller
Limits: (Continued)

Governor: Woodward 210660
Spinner: Hartzell 835-20

C.G. Range:

{+16.5} to {+20.5} @ 2500 lbs.
{+11.0} to {+20.5} @ 2000 lbs. or less
Straight line variation between points given

Maximum Weight:

Takeoff 2500 lbs.
Landing 2400 lbs.

Maximum Operating
Altitude:

18,000 ft.

Oil Capacity:

8.8 qt. (-49)

Powerplant Instrument
Markings:

Tachometer: Maximum 2800 RPM (Red Radial)
Normal 2000 to 2800 RPM (Green Arc)

Manifold Pressure Gage:

Maximum 41" (Red Radial)
Caution 36" to 41" (Yellow Arc)
Normal 20" to 36" (Green Arc)

Oil Temperature Gage:

Maximum 235°F (Red Radial)
Normal 70° to 180°F (Green Arc) (Optional)

Oil Pressure Gage:

Maximum 80 psi (Red Radial)
Minimum 25 psi (Red Radial)
Normal 25 to 80 psi (Green Arc)

Cylinder Head Temperature Gage:

Maximum 390 F (Red Radial)
(Bayonet type thermocouple on #1 cylinder)

Carburetor Inlet Temperature Gage:

Maximum 225°F (Red Radial)

Fuel Pressure Gage:

Maximum 14 psi (Red Radial)

Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both.

United States of America
Department of Transportation—Federal Aviation Administration
Supplemental Type Certificate
(Continuation Sheet)

Number SA3410WE

Date: May 24, 1977

STC : SA3410WE

Stinson 108-3, N6446M

Serial No. 108-4446

SUPPLEMENTAL TYPE CERTIFICATE ADDENDUM NO. SA3410WE

Powerplant Instrument
Markings: (Continued)

Fuel Pressure Gage:

Minimum (idle) 3 psi (Red Radial)

Normal 12 to 14 psi (Green Arc)

Caution 3 to 12 (Yellow Arc)

Airspeed Indicator

Markings:

Never Exceed (V_{ne})	140 MPH CAS (Red Radial)
Caution	126 to 140 MPH CAS (Yellow Arc)
Normal	65 to 126 MPH CAS (Green Arc)
Flaps extended	61 to 88 MPH CAS (White Arc)

Serial Numbers

Eligible: 108-4446 only

Certification Basis: Same as specified by Aircraft Specification No. A-767

Required Equipment: In addition to the equipment applicable and required by Aircraft Specification No. A-767, the equipment specified by Gary Murdock Installation Instructions No. 1 must be installed as a result of the incorporation of this STC.

NOTE 1. Current weight and balance report including list of equipment included in certificated empty weight, and loading instructions when necessary, must be in the aircraft.

NOTE 2. The following placards must be installed in front of and in clear view of the pilot:

(1) Adjacent to the M.P. gage:

	<u>"ENGINE</u>	<u>OPERATION</u>	<u>LIMITS"</u>
"TAKEOFF (ONE MIN.)	215 HP,	2800 RPM,	41" M.P. @ S.L.
	215 HP,	2800 RPM,	39.5" M.P. @ 6000 ft.
	215 HP,	2800 RPM,	41" M.P. @ 13,000 ft.

Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both.

United States of America
Department of Transportation—Federal Aviation Administration
Supplemental Type Certificate
(Continuation Sheet)

Number SA3410WE

Date: May 24, 1977

STC : SA3410WE

Stinson 108-3, N6446M

Serial No. 108-4446

SUPPLEMENTAL TYPE CERTIFICATE ADDENDUM NO. SA3410WE

Note 2. (Continued)

	<u>Engine</u>	<u>Operation</u>	<u>Limits</u>
MAXIMUM CONTINUOUS	190 HP,	2800 RPM,	36" M.P. @ S.L.
	190 HP,	2800 RPM,	34.5" M.P. @ 7000 ft
	190 HP,	2800 RPM	37" M.P. @ 18,000 ft.

STRAIGHT LINE VARIATION BETWEEN POINTS GIVEN"

(2) At the aux. fuel pump switch:

"AUX. FUEL PUMP ON
OFF"

(3) At the aux. fuel pump circuit breaker:

"AUX. FUEL PUMP (10 AMP)"

(4) At the propeller control:

"PUSH TO INCREASE RPM"

(5) At the turbo control:

"TURBO-PUSH TO INCREASE BOOST"

(6) At the cowl flap control:

"COWL FLAP-PULL OPEN"

(7) At the alternator field switch:

"ALT" "DO NOT TURN OFF ALTERNATOR IN FLIGHT EXCEPT
IN EMERGENCY"

(8) On left lower instrument panel:

"ALTERNATOR C/B UNDER PANEL (40 AMP)"

Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both.

United States of America
Department of Transportation—Federal Aviation Administration
Supplemental Type Certificate
(Continuation Sheet)

Number SA3410WE

Date: May 24, 1977

STC : SA3410WE

Stinson 108-3, N6446M

Serial No. 108-4446

SUPPLEMENTAL TYPE CERTIFICATE ADDENDUM NO. SA3410WE

Note 2. (Continued)

- (9) Delete existing placards referring to maneuvers, spins and utility category. Replace with the following placard:

"THIS AIRPLANE MUST BE OPERATED AS A NORMAL CATEGORY AIRPLANE IN COMPLIANCE WITH THE FAA APPROVED AIRPLANE FLIGHT MANUAL SUPPLEMENT. ACROBATIC MANEUVERS, INCLUDING SPINS, ARE PROHIBITED"

- (10) At alternate induction air control:

"ALTERNATE INDUCTION AIR - EMERGENCY USE ONLY - PULL ON"

(end)

Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both.

FAA FORM 8110-2-1 (10-69)

This certificate may be transferred in accordance with FAR 21.47.

PAGE 7 OF 7 PAGES

C FAA AC 73-2651